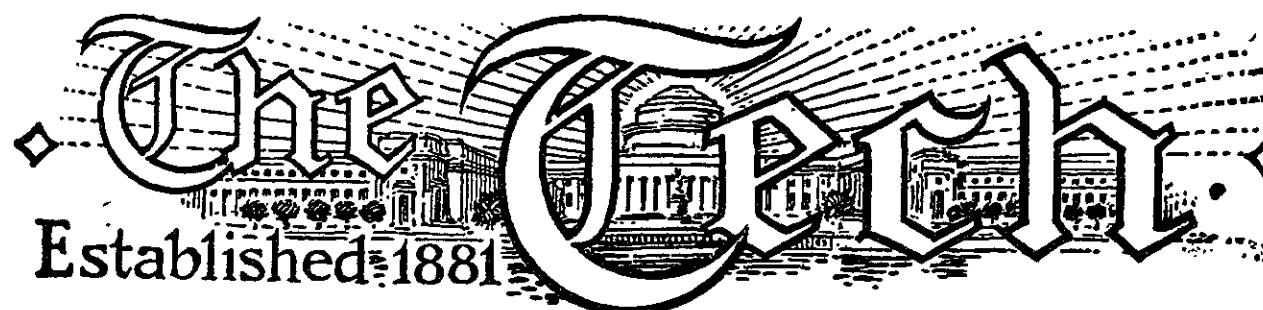


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CAMBRIDGE, MASS., FRIDAY, MARCH 1, 1918

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## TIME TRIALS HELD IN QUARTER MILE

Work of Track Team in Preparation for Meets With the Naval Militia and at Meadowbrook Progressing

1920 AND 1921 TO RUN

Time trials in the quarter-mile were held on the board track last Saturday afternoon for all candidates in running events. There were over sixty-five participants, the majority of whom were freshmen, although the Sophomores were also well represented. Several good records were made with the following men showing up especially well: Avery '16, McCarter '19, P. Scott '21, Halfacre '18, and Bardes '21. Coach Kanaly expressed himself as well pleased with the showing made as a whole and announces that trials in the mile will be held tomorrow. The primary purpose in holding the trials was to give an idea as to which men are the most likely candidates for the relay team which is to represent the Institute in the annual Pennsylvania Carnival Relay games on the 26th and 27th of April at Franklin Field, Philadelphia.

The team selected will also run in the Meadowbrook and annual Naval Militia meet at Hartford, Conn., although as yet Coach Kanaly has not heard from Meadowbrook. It is expected that something definite will be received this week and present indications point to a favorable reply.

Plans are now well under way for the annual duel meet between the freshmen and Sophomores on March 9, and practically every representative of the two classes on the track team has signified his intention of entering. This assures a large number of competitors and keen competition for honors. This meet will mark the close of the indoor season and all work on the bard track.

The active work and training will again be resumed on March 18 with practice being held on the athletic field instead.

L. E. BOYDEN '20 CHAIRMAN  
OF T. C. A. DEPARTMENT

Laurence E. Boyden '20 has been appointed chairman of the Student Service Department of the Technology Christian Association. He will appoint the chairmen of the following committees of his department: Foreign Students, Information Bureau, Book Exchange, Room Investigation, Freshman Advisors, Employment. The work of those committees is indicated by their names. The Freshman Advisors Committee selects one hundred upper-classmen to each one of whom are assigned four freshmen whom he is to help with their registration and assist generally until they have become acquainted with the ways of the Institute. The Employment Committee endeavors to find employment for those students who desire it.

### TALKS AT THE MUSEUM ARTS

The speakers who have been obtained for the next of the series of Sunday afternoon talks at the Museum of Fine Arts are: Mr. George B. Dexter, who will speak on the stories about some chests in the museum in picture reserve Room II of the Evans Memorial Galleries, at 3:15 o'clock; and at 4:00 o'clock Mr. Walter W. S. Cook will speak on the Spanish painting in the Museum in Gallery IV of the Evans Memorial Galleries.

### TECH SHOW CHORUS TRYOUTS.

Next Friday afternoon at 5:00 o'clock tryouts will be held in the Caf in building 2 for the chorus of Tech Show, 1918. The chorus this year will be of necessity reduced in concordance with the rest of the show, but its quality will be kept up to the standard shown in former years. There will be a chance for every one who has any ability in singing to show where they fit in this year's show, and the management wishes to see a large attendance at the meeting.

### PROVISIONAL TECH SHOW CAST WILL BE ANNOUNCED WEDNESDAY

#### Results of Rehearsals Show Need of Development of New Talent

Last Tuesday evening a rehearsal of those who are trying out for parts in the east of Tech Show was held in the Caf. Coach Duncan was in charge of the rehearsal and he went through the first act of the manuscript twice, using a new set of men each time and substituting other men from time to time. The rehearsal ran along very smoothly considering the number of men that were trying out. No parts have yet been definitely assigned but the provisional cast selected by Coach Duncan will not be published as yet. Mr. Duncan is very well satisfied with the work of the men thus far, but the Show this year will require the development of quite a little new talent and he has quite a task before him. However, from the material which has presented itself thus far, several men have appeared very promising. The next rehearsal will be held Tuesday evening, March 5, in the Caf, and only those men who survived the cut made by Coach Duncan at the last rehearsal need report. The result of the cut will be announced in the next issue of The Tech.

Today at 5:00 o'clock there will be a chorus rehearsal in the Caf, and all men who are not trying for parts must be there. Although the music and lyric competition has been closed for some time the entire selection of the music and lyrics has not yet been announced. It was stated that Hedlund, Gage and Collins are writing music and McGregory, Colye and Stam are writing lyrics. It is hoped that the complete list of musical numbers and their authors will be announced next week.

## JUNIOR DINNER

### Class of 1919 to Hold Its Annual Gathering in Walker Tomorrow

The annual dinner of the Junior Class is to be held tomorrow evening at 6:00 o'clock in the Walker Memorial. While as yet none of the definite arrangements have been made public it is expected that the affair will prove to be an important one for the Class of 1919, especially so since this will probably form its last large gathering before its contemplated graduation in September.

The committee on entertainment has not given out a complete or final program but the class officers assure everyone that a good time is certain. Although those in charge of the entertainment have been somewhat unsuccessful in securing speakers for the occasion, it is understood that Professor Miller of the Mechanical Engineering Department will give an interesting talk to the men. D. Oscar Mayes '19, the editor-in-chief of the Junior year book is expected to speak on the work of Technique 1919, at which time an announcement will also be made concerning the appearance of the 1919 Portfolio in the annual. It is likewise anticipated that Mayer will speak on the Tech Show 1918 of which he is the publicity manager.

All Juniors who expect to attend the dinner should procure tickets from the class representative in their course at once. The price is one dollar a plate.

### WAR DEPARTMENT NOTICE

The following memorandum, dated February 25, has been received by Major Cole from the office of the Secretary of War, Washington, D. C.:

"Students of any institution maintaining a unit of the Reserve Officers' Training Corps who are ineligible for membership in the Reserve Officers' Training Corps on account of age, nationality, or physical disability, may be attached to the unit for military instruction and training, but will not be counted in the strength of the unit and will not be entitled to any of the special benefits authorized for members of the Reserve Officers' Training Corps, such as uniforms, commutation of subsistence, etc. They will, however, be permitted to use the Government arms, tentage and equipment issued to the institution."

—By order of the Secretary of War.

## PROF. E. B. WILSON TALKS ON AIRSHIPS

### Institute Professor Lectures to Aviators—First of a Series of Talks on "Principles of Aeronautics"

#### ONE THOUSAND ATTEND

Under the auspices of the Lowell Institute, Dr. E. B. Wilson, Professor of Mathematical Physics at Technology delivered the first of a series of lectures on the "Principles of Aeronautics," last Monday evening, to an audience of nearly a thousand. A large number who attended the lecture were from the Naval Aviation School quartered in Walker Memorial. Professor Wilson chose for his subject "Balloons and Airships; Montgolfier to Zeppelin."

Due to the fact that the French were able to destroy a number of Super-Zeppelins last October some information is thereby afforded as it is the type of airships the Germans are now using.

One of these monsters of the air was brought to earth by the French in almost undamaged condition. It showed a length of 650 feet, and diameter of 82 feet. Its cross-section showed a polygonal form as Zeppelins did before the war, but whereas the earlier types had 17 sides, the new specimen had 25. The dirigible's five engines aggregated 1200 horsepower and developed a speed of 60 miles an hour. It had a hydrogen capacity of 2,000,000 cubic feet and could rise to a height of 334 miles with a lifting power of 60 tons. Of this weight 22 tons were the super-Zeppelin's own while of the remaining 38 tons the majority were devoted to ballast, leaving about nine or ten tons for fuel and bombs.

The hull was constructed of metal and the upper half of the ballon was painted cloud-gray and the lower half black, both with the object of securing low visibility. It has also been said that some of these ships are fitted with a device for casting a smoke screen to windward as a further means of concealment and protection. Eighteen separate gas bags, or balloons, were used in its construction, arranged in this way so that several of the bags might be pierced by gunfire and still not "sink the ship." These were found to be lined with goldbeaters' skin, and Professor Wilson remarked that the material was undoubtedly the best that had yet been discovered for the purpose. The most carefully rubberized cloth will leak hydrogen, sometimes at a rate of nine liters per square foot of surface per day. This loss is considerable, and for military purposes is probably worth offsetting, even at the cost of using such expensive material as goldbeaters' skin.

Precisely what developments are to be expected in German aerial policy it was impossible to say, Professor Wilson maintained, but it seemed apparent that, since the destruction of the great fleet in October, the Germans had much decreased their use of the big dirigibles and their reliance upon them for raiding. Previous efforts to put the super-Zeppelins to rout had not attained much success. The flaming bullet, invented by the English, was relied upon to put them out of action, since this bullet, taking fire as it did, could destroy the whole ship, whereas ordinary bullets might only pierce two or three gas-bags and leave the rest still buoyant.

Two or three Zeppelins were brought down in this way, but still the Germans, by various methods of concealing the ships in flight, continued to send them over England. Since the destruction of the fleet accomplished by the French, however, the news had indicated that they are using airplanes more and more in their raiding, even for the distant flights.

#### Early Days in Ballooning

Such was the picture Professor Wilson drew of the latest type of balloon airships. Very different was the story he told of the first balloon ascension authoritatively recorded by history.

### PROFESSORS FAY AND MOORE TO ADDRESS CHEM. SOCIETY

#### Former to Speak on Difficulties of Munitions Chemists

Professor Fay of the Institute will speak on the difficulties of munitions chemists at a meeting of the Chemical Society to be held March 7 in room 4-270 at 7:30 o'clock. Professor Fay is the consulting chemist of the Watertown Arsenal, is connected with the Winchester Arms Company, and has had considerable experience in the character of chemical work which is necessary to the munitions industry. His talk two years ago on "The Life of Big Guns" will be remembered by many students. Professor Moore of the Institute will also address the members of the society on the various explosives used in the war and will probably illustrate his talk by experiments with samples of some of these explosives. New officers of the society will be installed at the meeting. All men who are interested are invited to attend.

## "MIKE" AND HURLEY RACE

### Age With 27 Yard Handicap Ties Youth in 150 Yards

One of the most interesting events of the track trials on Monday was a race between "Mike," the groundkeeper of the athletic field, and Hurley '21, captain of the freshman football team, over a course of one hundred and fifty yards, resulting in a dead heat. "Mike" was given a handicap of twenty-seven yards over Hurley, who has the reputation of being a fast man, and came very near defeating his more youthful opponent.

Old age and relative inactivity showed their effects, however, and youth was able to hold its own. "Mike," as the name indicates, is a descendant of the race from Old Erin and is still imbued with that "pep" which characterizes his race (not the one hundred and fifty one, either, although quite a bit of "pep" was displayed in it). In his earlier days when he was in his prime for athletic events and capable of furnishing the greatest amount of athletic energy demanded, he participated for the most part in long distance races, particularly the five-mile. According to his group of supporters on the track team, of whom there were many, he was not such a bad athlete, either.

The men attending the trials last Monday were about evenly divided in their sympathies between the two contestants with betting odds 2 to 1 (but it is not the policy of THE TECH to quote bets, so the readers will have to guess).

### DORMITORY DANCE TO BE HELD IN WALKER

There will be a dormitory dance held a week from tomorrow, Saturday, March 9, in the Walker Memorial. Dancing will begin at 7:45 o'clock and continue until 11:45 o'clock.

Harrington's Jazz Band will furnish the music, which is to consist of the latest popular dance pieces. The program has not yet been definitely arranged, but it is expected to be of the conventional sort in the addition of a specialty number, the nature of which is not yet known. This specialty, however, should prove to be the feature of the evening.

The men living in the dormitory who have paid their tax will be admitted free. Others may obtain tickets at the regular price, seventy-five cents per couple. These tickets are limited to fifty and will be on sale beginning today. Those desiring to purchase them may do so from either A. J. Daube '19, P. F. Swasey '19, W. N. Barron '20, or M. M. Witticher '20.

(Continued on page 4)

## "MAT" BRUSH WILL SPEAK ON TUESDAY

President of Boston Elevated Railway to Talk to Electricals on Means of Success for Young Engineer

### ELECTION OF OFFICERS

"Mat" Brush '01, has arranged to give an informal talk on the means of success for a young engineer, at the next meeting of the Technology student branch of the American Institute of Electrical Engineers, which is to be held Tuesday evening, March 5, in room 2-190. Mr. Brush is still in this thirties but nevertheless holds one of the most responsible positions in Massachusetts, in the capacity of president of the Boston Elevated Company. The tact and principle which must be used by the holder of such an office is well exhibited by the head of the corporation, which controls one of the most complicated street railway systems in the country, and which at present is undergoing the greatest crisis ever presented in the history of any street railway.

The great difficulty of appeasing the demands of stockholders, employees, and the public, all of which are in opposition to each other, is a feat which President Brush is truly accomplishing.

The cause for all this successful management, even in times such as these, Mr. Brush attributes to his contact with men of both business and engineering interests, and to the personality which it develops. He thinks that but for his knowledge of human nature and business, he would never have attained the success which now crowns him. Starting his career after graduating from the Institute, in a small western railroad as an operating mechanic, he was rapidly advanced, not by his success alone in mechanics, but by his contact with men holding important positions in railroading and other forms of engineering. In his lecture Mr. Brush will attempt to explain the way in which one should get into personal touch with the world and then easily succeed.

One rather interesting trait of "Mat" is his system of registering all the important people whom he meets. He accomplishes this by a card index in which he files the name, position and personal characteristics of everyone with whom he may in the future be concerned in business. By this system Mr. Brush keeps a record of those men whom he can call upon, or whom he may at any time employ in some service. This and other traits help to distinguish Mr. Brush as a man of good business standing. His talk is one that all should attend.

Before the lecture by Mr. Brush, an election will be held by the Society for the purpose of choosing an electoral committee. This committee is composed of four Juniors and one Senior, whose duty it is to arrange the date of the nominations and elections and attend to the papers and ballots connected with them. The officers to be elected are president, vice-president, secretary and treasurer, their period of holding office extending from the end of this term until one year from that time. For the final nominations each nominee must have on his papers the names of five members in good standing of the Society.

After the meeting a buffet supper will be served in the "Caf."

### CALENDAR

Saturday, March 2, 1918  
6:00 P. M. Junior Dinner in Walker Memorial.

Tuesday, March 5, 1918  
5:00 P. M. Tech Show Cast Rehearsal in the Caf.



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The Editor-in-Chief is always responsible for the opinions expressed in the editorial columns, and the Managing Editor for the matter which appears in the news columns.

#### IN CHARGE THIS ISSUE

K. Roman '20.....Night Editor  
G. Russell Steininger '21.....Assistant Night Editor

FRIDAY, MARCH 1, 1918

#### THE SPIRIT AT THE COSMOPOLITAN CLUB DANCE

VERY significant was the spirit shown at the Cosmopolitan Club dance last Saturday evening.

A few years ago, the success of such a function would have been far less pronounced.

The war, however, is bringing all nations into closer sympathy with one another, and is developing among them a willingness to meet on a common ground of sociability.

Never before have one people considered and accepted the social customs of another as readily as they do today.

The war is compelling them to recognize the worth of foreign ideas and influences, and is pointing out to them wherein their own institutions are weak and faulty.

The success of the Cosmopolitan Club dance was due largely to this spirit of sympathy and cooperation; to the realization that we are not people of this or that nation, but that we are members of the great human race, and have many common aims and interests.

If it did no more than to awaken this feeling of brotherhood between nations, the war would be justified.

#### DOWN TO WORK

FTER many months of restlessness, caused by the uncertain conditions of war and by the departure of many men, the Institute has at last buckled down to work.

The students have come to realize that unless closer attention is paid to studies, their courses will be of little value to them; they have come to recognize that their duty to their country lies in doing their daily work as thoroughly and as systematically as in normal times.

It is of utmost importance that all the functions of the Institute be maintained, in order that the benefits derived from each may not be lost to the student, and he consequently be unfitted for greatest service.

The reorganization of the finance committee of the Institute last Tuesday night was a step toward restoring affairs to their normal status.

The clubs and professional societies are mapping out interesting programs for the present term.

Tech Show is planning to give one of the best entertainments ever.

In fact all aspects of Technology life are becoming active, and promise the undergraduate the same benefits as in former years.

Let the good work continue!

#### THE COURTESY OF THE BOSTON ELEVATED

RECENTLY, there appeared in this column an article on the car service to and from the Institute. Copies of this editorial were sent to the Boston Elevated Company with the result that they took the matter up with The Tech.

Hereafter, cars will be run morning and night between Harvard Square and Boylston Street at five minute intervals. There will also be several cars at the Institute about 1.05 Saturdays to accommodate the crowds dismissed at that hour.

We thank the Boston Elevated for their courtesy in affording Technology students these accommodations.

All the Juniors are going to the dinner Saturday, are you?

Paid that student tax yet?



The Question Box has been inaugurated for SERVICE. So many questions have arisen, and so many doubts have been expressed among both the student body and the Alumni about the relations of Technology and Technologists to the war, that the WAK TIME TECH has deemed it advisable to establish a medium for clearing up these difficulties. It is strongly desired that neither the Alumni nor the undergraduates will hesitate to send in any questions that concern them directly or any that they think will be of benefit to Technology in common.

Address all inquiries to The Question Box Editor, The Tech. The name of the questioner will be withheld from publication, but each letter must be signed.

The Question Box is for YOU personally. Be sure you use it!

Editor of the Question Box,  
The Tech.

Dear Sir:-

The enclosed (copy of Secretary Daniel's message to college men) was read with interest. Will you please answer, if possible, in your question box, what Branches are open to Tech men for securing commissions and the procedure?

Yours very truly,

V. L. G. '12, Course VI

There are three branches of naval service open for Technology men. 1. The Merchant Marine. All men who have had at least two years of sea experience are eligible to enter the shipping-board training schools leading to licenses. For further information concerning these schools see the question box in The Tech of February 22.

2. The Naval Reserve Flying Corps. This is open to all men with satisfactory qualifications, but the men who are subject to the draft must secure a certificate from their local exemption boards waiving their liability to the Supervisor, N. R. F. Corps, Washington, D. C. for enlistment in that branch of the service. When graduated from the flying schools the men will receive the commission of Ensign.

3. The Naval Reserve Corps. As in the case of the Naval Reserve Flying Corps, this branch is open to all men. For those men subject to the draft, they must secure a certificate from the local board showing that they are not in the next quota to be called. Men in the first naval district, Eastport to Chatham, must then apply at the Boston Navy Yard for enlistment in the Naval Reserve Corps. If they are accepted they should then apply for active service in that district, and if this is granted, they can then ask for permission to take the examination for the Naval Cadet School at Harvard, or for the course being given at Annapolis. Upon graduation, the men receive the commission of Ensign, U. S. R. C. Men in other naval districts apply at the navy yard of chart district.



CALIFORNIA.

Coach Cozens will have to call in a staff of assistants to help him choose his lineup for the first game on the freshman varsity baseball schedule next week as there are forty-five aspirants out daily for practice. Six of the crew are pitchers, while there are outfielders and infielders galore. The catcher's position will be the only one at all difficult to fill and if Cozens can't pick a winning nine out of this lot, he never will be able to.

#### CORNELL.

Pledges to the Cornell War Chest approximate \$9,500 monthly. The dues last month were paid in before the fifteenth to the amount of \$9,350, but very little less than the total pledges. From the War Chest payments for all war charities are made, thus removing the necessity at Ithaca for any further campaigns during the year 1918.

#### INDIANA.

The 1918 football schedule has been completed by Coach Stiehm and as approved by the athletic committee includes three conference games, Iowa, Minnesota and Wisconsin. Wabash, DePauw and one of the National Army teams are the other grid foes to be met.

The sports editor of the Indiana Daily Student has made an interesting compilation of points registered this season by "Big Ten" basket shooters, with the result that Chandler of Wisconsin is discovered to be the greatest collector of all. He has, up to his retirement

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from conference circles, thrown sixty-three points through the ring; Von Lackum of Iowa, with sixty-one, is a close second, and Anderson of Illinois comes fourth in the list with a total at that date of forty-seven. Gillen of Minnesota was third man with sixty points, all of which were field goals.

#### LOUISIANA.

Louisiana State is bidding strongly for the southern basketball championship, having won four out of five games played in the last eastern tour. The tigers have won all their games by wide margins, the only defeat having been administered by the Birmingham A. C. at a 14-13 clip.

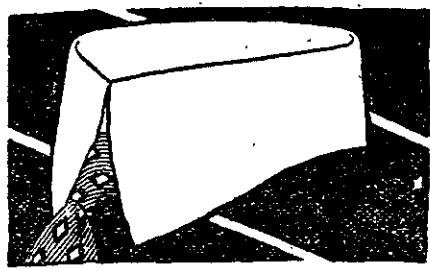
#### MICHIGAN.

With the abandonment of the ambulance service as a branch of the United

States army, two University of Michigan sections, recruited at Ann Arbor last June and now stationed at the cantonment there, are to be disbanded. The third section formed at that time is now in active service back of the lines in France and will continue in the service.

#### MISSOURI.

Columbia is to have a school of aviation covering practically the same work as the United States ground schools, according to an announcement made by Prof. E. R. Hedrick of the department of mathematics. In addition to the theoretical work, models will be built in which it will be attempted to incorporate the fundamental principles of aircraft construction. Thirty-six students have already signified their intention of



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## LETTER RECEIVED FROM AMERICAN UNION TELLING OF WORK DONE FOR SOLDIERS

A letter has been received from Mr. Anson Phelps Stokes, chairman of the Board of Trustees of the American University Union in Europe, who is now on the other side in connection with the further development of the Union. Mr. Van R. Lansing '98, is head of the Technology Board of this association.

The letter follows:

"It is delightful to have men drop in constantly who seem to appreciate the privileges of the place when they come here from their camps or from the front, and I hear on all sides deep appreciation of the Union and what it is doing for college men."

The library of the Union has outgrown the space originally devoted to it, and one of the large rooms just above the main office has now been converted into a comfortable and attractive reading-room. One of the new features of the Union is the purchasing department. An agent has been appointed to attend to purchases for men at the front; this business is growing rapidly. Arrangements are also being made for a printing department which will enable the Union to send to the college men who register there announcements of receptions, dances, dinners and other entertainments. On a Sunday evening recently, a concert was given which, Mr. Stokes writes, "would be notable for its quality anywhere."

Arrangements are being made by the officers of the Union and a committee of professors of the University of Paris for a solemn festival to be held in the large amphitheatre of the Sorbonne on February 24 to commemorate the entrance of American college men to the war. This will be a most significant and important occasion, and it is only one of the many manifestations of French interest in the Union.

Professor Alderfer of Oberlin College, Professor Cunliffe of Columbia University, and Mr. William Wallace Irwin of New York said recently for France to join the staff of the Union and particularly to take care of the interests of college men from institutions which have no secretary to perform this service for them. Mr. J. Marshall Head of Brookline, the executive secretary, will welcome all guests on arrival and advise them as to rooms and other matters.

There are now 115 colleges on the membership list of the Union. Among the State universities which have recently become members are: University of Colorado, University of Denver, Iowa State University of Agriculture and Mechanic Arts, University of Kansas, University of Montana, North Dakota Agricultural College, University of Nevada, State College of Washington, Tulane University of Louisiana and University of Wisconsin.

### STUDY IN WAR TIME

(From The Boston Transcript)  
Students at Cornell lately had the task of discovering that an unusually large number of men had been discharged from the university on account of deficiency in their studies. Apparently the undergraduates had been looking for leniency under war-time conditions, despite the fact that the country's entrance into the war provides the one commanding reason why there should be less laxity than ever. Now is not the time to put a premium upon slovenliness.

Today there comes from Harvard a report, varied in form, but the same in substance as that which came from Cornell. An inordinately large number of men have been placed on probation at Cambridge. The collegiate undergraduate's present neglect of his studies begins to seem quite general condition. Hope that the seriousness of the times would stimulate college men to a new seriousness of interest in their studies appears to have been more or less premature in some instances. The counter-agent—the uncertainty of men looking forward to military service—seems to be the stronger force of the two, and to have succeeded in lowering still further the already low standard of American under-graduates' scholastic work. When will they learn that there is only one preparation for war or for peace, and that is the thorough-going performance of the work in hand, be it military or civil? Any other conduct simply unfit soldiers to be soldiers before they become soldiers. The Army and Navy might do well to announce that they would refuse early preference to men whose present collegiate records are poor.

### AIMS OF THE GERMANS IN THEIR OWN WORDS

(Reprinted from a pamphlet issued by the committee on public information.)

"The war which seems approaching will decide our whole future. As far as we are concerned, the question is whether we are to maintain our present position in the political world and become a world power or whether we are to be pushed back and become a purely continental state of second rank. I trust that every German may bear that alternative in mind, and that it may be quite clear to our government how much is at stake. All other considerations must recede into the background when the will to power and to victory is concerned. Every individual German ought to be governed by the determination to win that victory, no matter how difficult this may prove to be."—From an article by General Behnhardi on "Unsere Zukunft" in Hannoversche Tageblatt, Dec. 28, 1912. (N. pp 98-99.)

"It is on the soil of Europe which has been fertilized by blood that there is growing up for us a German crop, and we shall still the tears of those who have given their dear ones if we can say to them: 'Thy son, thy husband has fallen for this greater and stronger Germany—bloody sacrifices have been offered, and more will fall; they must provide the foundation for territorial expansion of our country, for boundaries in the East and West which will secure us peace for a generation.'—The Deutsche Kurier of Aug. 3, 1906 (G. pp. 76-77).

"To compel men to a state of right, to put them under the yoke of right by force, is not only the right but the sacred duty of every man who has the knowledge and the power. In case of need one single man has the right and duty to compel the whole of mankind; they have, as against him, no right and no freedom.

"He may compel them to right. For right is an idea, absolute, definite, of universal validity; an idea which they all ought to have, and which they all will have as soon as they are raised to his level. This idea, in the meantime, he has in the name of them all, as their representative, by virtue of the grace of God which works in him. The truth of this idea he must take upon his own conscience. He is the master, armed with compulsion and appointed by God."

(Staatslehre: Fichte's Werke, 1844, I, iv, p. 436).

"Life is essentially appropriation, in injury, conquest of the strange and weak, suppression, severity, obstruction of its own forms, incorporation at the least, and in its mildest for exploitation."

(Nietszche, Beyond Good and Evil, section 259. Nietszche (1844-1900) has been called the "prophet of the mailed fist." Really he was not a lover of Prussia, and its ways, but his ethics were imbued with militarism.

function, has been discontinued. The estimated cost of the Bowl was \$300,000 as originally planned, but the final figures were much in excess of that amount.

### WASHINGTON & LEE

Although word has come through other college newspapers of the disbanding of their ambulance units, the Ring-tum Phi of Washington and Lee announces the arrival of unit No. 534 at the front in France, the enlisted strength of which is thirty-six.

### PRESIDENT WILSON AS FOOT BALL COACH AT WESLEYAN

Woodrow Wilson, President of the United States, once coached the Wesleyan football team, and his work was so successful that the college defeated the University of Pennsylvania at Berkley oval, New York city, on Thanksgiving day that year, 10 to 2. That was in 1889, and Pennsylvania and Wesleyan were members of the American Inter-collegiate Football Association, with Yale, Harvard and Princeton.

President Wilson was professor of history at Wesleyan in 1889. When the football team started the season poorly and the college body lost confidence in its eleven, Professor Wilson injected himself into the situation. He expressed an interest in the football work and was elected faculty adviser. Strengthened by this authority he turned to the task of building up a winning team at Wesleyan.

Loyalty and work were the twin virtues he preached to the team and he succeeded in getting the men to put them into practice. Wesleyan had no coach in those days, so the young history professor studied the rudiments of the game and taught them to the team. He was found on the field every afternoon conferring with the captain, McDonald. The Wesleyan players in the early games of the season had displayed a tendency to try to pull off grandstand plays, at they were called. Each man seemed to want to do something spectacular. Professor Wilson realized that this spirit would mean failure in the end and he discouraged it. He talked about team play and the duty of each player to co-ordinate his efforts for the good of all. The undergraduates soon got to speaking of the team as the Wilson machine. After Wesleyan had defeated Trinity, Rutgers and Williams there was great enthusiasm.

Lehigh had been playing a fine game in the meantime and had sent a challenge to Wesleyan, which was accepted. A game was arranged to be played at Hampden Park in Springfield, Mass., the Friday before Thanksgiving. The game was marked by long punts, brilliant runs and terrific charges. Wesleyan played with great earnestness, for a rumor had here that should Lehigh win she would ask for Wesleyan's place in the big league. Dashiel kicked a pretty goal from the 25-yard line, which netted Lehigh five points. Slayback scored for Wesleyan, but it was not allowed on account of alleged interference. In the second half Dashiel carried the ball over for Lehigh, which made the score 11 to 0 in favor of Lehigh.

"It is on the soil of Europe which has been fertilized by blood that there is growing up for us a German crop, and we shall still the tears of those who have given their dear ones if we can say to them: 'Thy son, thy husband has fallen for this greater and stronger Germany—bloody sacrifices have been offered, and more will fall; they must provide the foundation for territorial expansion of our country, for boundaries in the East and West which will secure us peace for a generation.'—The Deutsche Kurier of Aug. 3, 1906 (G. pp. 76-77).

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Bhadreswar, Bengal****ATTACHMENT OF AMBULANCE  
DRIVERS FOR THEIR CARS**Poem Entitled "Hunka Tin" Shows  
Respect Men Have for Ford Cars

War correspondents have often commented on the attachment of ambulance drivers for their cars and have also spoken of the particular serviceability of the lightweight cars which are especially popular among the men of the ambulance units.

The poem here given bears out these statements. It was written by a driver on the French front, whose name was not disclosed, and received in this country by Donald McGuigan of Minneapolis, who is now stationed at Fort Riley, Kansas.

In the language of the ambulance drivers, "voitures" means carriage; "blesses" signifies wounded soldiers; and "essence and l'eau" are his terms for gas and water respectively. The poem follows:

**HUNKA TIN**  
You talk about your voitures,  
When you're sitting round the quarters,  
But when it comes to getting blesses in,  
Take a little tip from me,  
Let those heavy motors be,  
Pin your faith on Henry F's old Hunka  
Tin.  
Give her essence and Peau,  
Crank her up and let her go,  
You back firin', spark plug foulin'  
Hunka Tin!

The paint is not so good.  
And do doubt you'll find the hood  
Will rattle like a boiler shop enroute;  
The cooler's sure to boil,  
And perhaps she's leaking oil,  
Tho oftentimes the horn declines to  
toot;  
But when the night is black,  
And there's blesses to take back.  
And they hardly give you time to take  
a smoke,  
It's mighty good to feel,  
When you're sitting at the wheel,  
She'll be running when the other cars  
are broke.

After all the wars are past.  
And we're taken home at last,  
To our reward of which the preached  
sings;  
When those ukalele sharks,  
Will be strumming golden harps.  
And the aviators all have regal wings,  
When the Kaiser is in hell,  
With the furnace drawing well,  
Paying for his million different kinds  
of sin,  
If they're running short of coal,  
Show me how to reach the hole,  
And I'll cast a few loads in with Hun-  
ka Tin.

Yes, Tin, Tin, Tin.  
You exasperating puzzle, Hunka Tin,  
I've abused you and I've flayed you,  
But by Henry Ford who made you,  
You are better than a Packard, Hunka  
Tin!

**ARMY DEATH RATE**

"The death rate in our forces in the United States, from mid-September to the end of December, averaged 7.5 per thousand and is slightly less than would have been the death rate of men of the same age at home. In 1898 the death rate per thousand was 20.11, or nearly three times as great. Our death rate in the army during the year 1916 just before the war, was five per thousand. Leaving out the deaths due to measles and its complications our rate among all troops in the United States since Sept. 1 has been about two per thousand.

**PROF. WILSON SPEAKS**  
(Continued from page 1)

The first balloon, as explained, was raised by hot air in 1783, being the invention of two rich paper manufacturers in France, the brothers Montgolfier. As soon as the physicists and other scientists of the French Académie heard of this successful experiment they became intensely interested in the possibilities of further investigation. Naturally they, with their information that hydrogen was a very light gas, decided to fill their balloon with this gas, even though chemical means of making it were then very primitive.

The announcement that this balloon was to be cut loose, lifting a weight of 39 pounds, was spread broadcast throughout Paris, and thousands of people crowded the Champ de Mars to witness the ascension. Benjamin Franklin was among the spectators, and his very careful notes of the occasion have been preserved for us a good record of the proceedings and of the balloon itself. The hydrogen bag traveled upward out of the sight of the crowd, but the very next day news was received from it. It had fallen in a little town about four leagues distant in a much damaged condition. Another and greater Montgolfier balloon had a hydrogen capacity of 50,000 cubic feet and was very ornately made and decorated.

Many fantastic ideas were entertained as to what might be the future development of ballooning and as to the services which balloons might perform for mankind. It was suggested, for example, that, with a balloon attached under his shoulders, and lifting his weight, a man might be able to run across country at the same rate of speed as the wind which was traveling with him.

**Prophecies That Did Come True**  
Such future uses, however, as employment for observation of enemy positions were also forecast by the wiser men of the day, who had certainly been found justifiable in their prophecies.

Professor Wilson continued to sketch rapidly the development of ballooning since the days of the Montgolfier, mentioning the flight from Dover to Calais very soon afterwards achieved by Dr. Jeffrey of Boston, the ascension of 29,000 feet accomplished in England in 1862, and the height of 34,000 feet recorded in 1901.

Striving for great distance and height records had occupied, he said, an undue place in public attention. The more serious work had been done in the development of balloons' dirigibility. Possible progress in this line had also been forecast by Franklin, who suggested that it might ultimately be possible to guide their motion somewhat in a calm, and to "slant them a little in the wind." From this point Professor Wilson advanced to discussion of modern types of dirigibles, concluding with his remarks on the super-Zeppelins.

At the close of his lecture, Dr. Wilson set before his audience the latest data available concerning the super-Zeppelins which the Germans have been using. Ordinarily, he said, it was difficult to speak of the changes made during the progress of the war, but due to the brilliant destruction of the German fleet last October, a pretty clear idea of their latest machines has been gained.

These lectures, which are open to the public, will be continued Monday and Thursday evenings at Huntington Hall, 491 Boylston street, at eight o'clock. Dr. Wilson has divided the subject under the following heads: Ballooning, Elements of Aerostation, Gliders and Airships; Langley and Wright; Early Theories of Sustaining; Experimental Fluid Dynamics; Aerodynamical Laboratories; Applications of Theoretical Mechanics.

**A BIT OF FINANCIAL HISTORY**

The credit of the United States was so high and unquestionable that in 1900, two years after the Spanish war, 2 per cent. bonds were offered at par and oversubscribed. This is a financial performance no other nation has ever equaled.

United States 4 per cent. bonds in 1888 sold as high as 130 and in 1901 brought 130 7-8 on the stock market.

The United States has never defaulted on any of its bonds. Not one of its bondholders has ever lost a cent of principal or interest except those who voluntarily have taken losses by selling their bonds in a period of temporary price depression. One hundred cents on the dollar, principal and interest, has the United States always paid.

Back of the \$250,000,000,000 to \$300,000,000,000 of our national resources stands the rugged honesty of America. Liberty loan bonds are the safest security in the world.

**SUPPLY OF PHOSPHATE  
DEVELOPED IN KENTUCKY.**

Report by Fendall and Kentucky Geological Surveys.

In view of the intensive cultivation of crops last summer and of probable similar intensive cultivation in future summers throughout the war and the consequent greater need of fertilizer, the announcement of a practically undeveloped but available deposit of phosphate is just one more bayonet thrust into the Kaiser's armor.

A detailed report on the little known phosphate field in the Blue Grass region of central Kentucky is now ready for distribution. The principal Kentucky phosphate field is near Midway, Woodford County, but phosphate rock is found also in Lexington, Fayette County, and in Scott, Franklin, Jessamine, and Clark counties. The deposits near Midway and Lexington are the most valuable.

Samples of phosphate rock were obtained from more than a hundred drill holes, sunk in the most promising places in the field, and were analyzed in the laboratory of the United States Geological Survey, Department of the Interior, and the analyses indicate that there is considerable high-grade phosphate rock in this part of Kentucky, as well as a great deal of low and intermediate grade rock which will have to be washed before it can be marketed. There is abundant flowing water in the region and this fact and the ample railroad facilities make the Kentucky field worthy of attention.

The report points out the advantages of the Kentucky field with reference to freight rates and markets in the north and west, particularly in connection with shipments of raw rock phosphate, which is rather generally used in the States north of Ohio River.

The Kentucky phosphate is in practically a virgin field. The local conditions in the Tennessee and Kentucky phosphates fields are similar, and the deposits in Kentucky must be worked in about the same way as those in Tennessee. For this reason the report gives a brief description of the methods followed in Tennessee in mining phosphate rock and preparing it for market.

The report gives detailed descriptions and analyses of the phosphate rock, maps, and sections, as well as general conclusions with reference to the outlook for the field.

The report, which is entitled "The Central Kentucky Phosphate Field," was prepared by W. C. Phalen jointly for the Kentucky Geological Survey and the United States Geological Survey, Department of the Interior. Copies of the report are available for free distribution and may be had by addressing the State Geologist of Kentucky, Frankfort, Ky., or the Director of the United States Geological Survey, Washington, D. C.

**NON-RICOCHET SHELL  
IS HIGHLY DEVELOPED.**

In his statement made public on Jan. 13 Representative Oliver, chairman of the House Committee investigating the conduct of the Navy, referred to the development of the non-ricochet shell which has been used successfully. Much of the detailed description of the new projectile has not been made public, but it may be said that after years of experimenting a projectile has been turned out that will burst either upon contact under water with the target or, if so planned, at a predetermined depth.

The new projectile may be fired to strike the water on the near side of the target, a periscope, for example, and it reaches its objective, a submarine, for example, although it is powerful enough to destroy the lighter side armor in the hull of a battleship. An ordinary projectile when it falls short of the target and strikes the water sometimes claps into the air and passes over the target. It does not dive so that it will explode under the surface.

Projectiles have been designed in the past that dive, but it was a problem to construct a fuse that will not cause an explosion upon contact with the water. The new shell is a flat nosed affair which, when it strikes the water, continues its downward course at a slightly lower angle until it reaches its objective.

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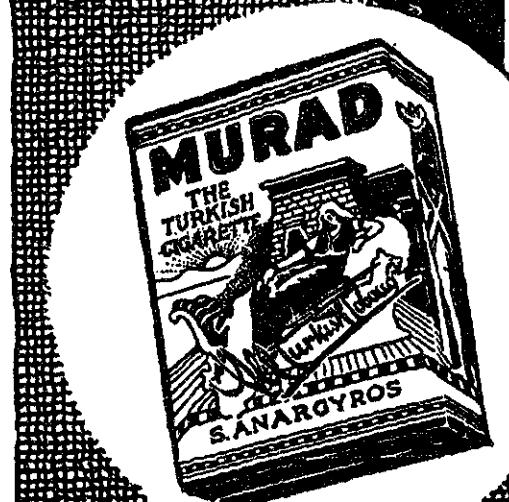
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